

1645



1600

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/336,036

DATE: 01/16/2003

TIME: 12:21:58

Input Set : A:\Sequence Listing.txt

Output Set: N:\CRF4\01162003\I336036.raw

#24
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JAN 23 2003
TECH CENTER 1600/2900

3 <110> APPLICANT: Schlievert, Patrick M.
4 Ohlendorf, Douglas
5 Mitchell, David T.
6 Gahr, Pamala M.
8 <120> TITLE OF INVENTION: MUTANTS OF STREPTOCOCCAL TOXIN C AND METHODS OF USE
10 <130> FILE REFERENCE: 600.347US11
12 <140> CURRENT APPLICATION NUMBER: US 09/336,036
13 <141> CURRENT FILING DATE: 1999-06-18
15 <150> PRIOR APPLICATION NUMBER: US 09/308,829
16 <151> PRIOR FILING DATE: 1999-07-14
18 <150> PRIOR APPLICATION NUMBER: US 60/091,864
19 <151> PRIOR FILING DATE: 1998-07-06
21 <150> PRIOR APPLICATION NUMBER: PCT/US97/22125
22 <151> PRIOR FILING DATE: 1997-12-05
24 <150> PRIOR APPLICATION NUMBER: US 60/033,251
25 <151> PRIOR FILING DATE: 1996-12-06
27 <160> NUMBER OF SEQ ID NOS: 2
29 <170> SOFTWARE: PatentIn version 3.1
31 <210> SEQ ID NO: 1
32 <211> LENGTH: 936
33 <212> TYPE: DNA
34 <213> ORGANISM: Streptococcus pyogenes
36 <220> FEATURE:
37 <221> NAME/KEY: CDS
38 <222> LOCATION: (154)..(858)
39 <223> OTHER INFORMATION:

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45	aaaatttcta aataaacaga	aattctgattt	ttaactactt	actgctattt	catgtattct	120
47	cgtacgagta atacatttaa	ttaaggagaa	aaa atg	aaa aag	att aac atc atc	174
48					Met Lys Lys Ile Asn Ile Ile	
49			1		5	
51	aaa ata gtt ttc ata att	aca gtc ata ctg	att tct act	tat ttc acc		222
52	Lys Ile Val Phe Ile Ile	Thr Val Ile Leu Ile	Ser Thr Tyr Phe Thr			
53	10	15	20			
55	tat cat caa agt gac tct	aag aaa gac att	tcg aat gtt	aaa agt gat		270
56	Tyr His Gln Ser Asp Ser	Lys Lys Asp Ile Ser	Asn Val Lys Ser Asp			
57	25	30	35			
59	tta ctt tat gca tac act	ata act cct tat	gat tat aaa	gat tgc agg		318
60	Leu Leu Tyr Ala Tyr Thr	Ile Thr Pro Tyr	Asp Tyr Lys Asp	Cys Arg		
61	40	45	50	55		
63	gta aat ttt tca acg	aca cac aca tta	aac att gat	act caa aaa tat		366
64	Val Asn Phe Ser Thr	Thr His Thr Leu	Asn Ile Asp Thr	Gln Lys Tyr		

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65          60          65          70
67 aga ggg aaa gac tat tat att agt tcc gaa atg tct tat gag gcc tct      414
68 Arg Gly Lys Asp Tyr Tyr Ile Ser Ser Glu Met Ser Tyr Glu Ala Ser
69          75          80          85
71 caa aaa ttt aaa cga gat gat cat gta gat gtt ttt gga tta ttt tat      462
72 Gln Lys Phe Lys Arg Asp Asp His Val Asp Val Phe Gly Leu Phe Tyr
73          90          95          100
75 att ctt aat tct cac acc ggt gag tac atc tat gga gga att acg cct      510
76 Ile Leu Asn Ser His Thr Gly Glu Tyr Ile Tyr Gly Gly Ile Thr Pro
77          105          110          115
79 gct caa aat aat aaa gta aat cat aaa tta ttg gga aat cta ttt att      558
80 Ala Gln Asn Asn Lys Val Asn His Lys Leu Leu Gly Asn Leu Phe Ile
81 120          125          130          135
83 tcg gga gaa tct caa cag aac tta aat aac aag att att cta gaa aag      606
84 Ser Gly Glu Ser Gln Gln Asn Leu Asn Asn Lys Ile Ile Leu Glu Lys
85          140          145          150
87 gat atc gta act ttc cag gaa att gac ttt aaa atc aga aaa tac ctt      654
88 Asp Ile Val Thr Phe Gln Glu Ile Asp Phe Lys Ile Arg Lys Tyr Leu
89          155          160          165
91 atg gat aat tat aaa att tat gac gct act tct cct tat gta agc ggc      702
92 Met Asp Asn Tyr Lys Ile Tyr Asp Ala Thr Ser Pro Tyr Val Ser Gly
93          170          175          180
95 aga atc gaa att ggc aca aaa gat ggg aaa cat gag caa ata gac tta      750
96 Arg Ile Glu Ile Gly Thr Lys Asp Gly Lys His Glu Gln Ile Asp Leu
97          185          190          195
99 ttt gac tca cca aat gaa ggg act aga tca gat att ttt gca aaa tat      798
100 Phe Asp Ser Pro Asn Glu Gly Thr Arg Ser Asp Ile Phe Ala Lys Tyr
101 200          205          210          215
103 aaa gat aat aga att atc aat atg aag aac ttt agt cat ttc gat att      846
104 Lys Asp Asn Arg Ile Ile Asn Met Lys Asn Phe Ser His Phe Asp Ile
105          220          225          230
107 tat ctt gaa aaa taattcatca tacacaaaaa accgcccaga ataattctgag      898
108 Tyr Leu Glu Lys
109          235
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114 <210> SEQ ID NO: 2
115 <211> LENGTH: 235
116 <212> TYPE: PRT
117 <213> ORGANISM: Streptococcus pyogenes
119 <400> SEQUENCE: 2
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125 Leu Ile Ser Thr Tyr Phe Thr Tyr His Gln Ser Asp Ser Lys Lys Asp
126          20          25          30
129 Ile Ser Asn Val Lys Ser Asp Leu Leu Tyr Ala Tyr Thr Ile Thr Pro
130          35          40          45
133 Tyr Asp Tyr Lys Asp Cys Arg Val Asn Phe Ser Thr Thr His Thr Leu
134          50          55          60
137 Asn Ile Asp Thr Gln Lys Tyr Arg Gly Lys Asp Tyr Tyr Ile Ser Ser

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138	65					70						75					80
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142					85					90					95		
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146				100					105					110			
149	Ile	Tyr	Gly	Gly	Ile	Thr	Pro	Ala	Gln	Asn	Asn	Lys	Val	Asn	His	Lys	
150			115					120					125				
153	Leu	Leu	Gly	Asn	Leu	Phe	Ile	Ser	Gly	Glu	Ser	Gln	Gln	Asn	Leu	Asn	
154		130					135					140					
157	Asn	Lys	Ile	Ile	Leu	Glu	Lys	Asp	Ile	Val	Thr	Phe	Gln	Glu	Ile	Asp	
158	145				150					155					160		
161	Phe	Lys	Ile	Arg	Lys	Tyr	Leu	Met	Asp	Asn	Tyr	Lys	Ile	Tyr	Asp	Ala	
162				165						170					175		
165	Thr	Ser	Pro	Tyr	Val	Ser	Gly	Arg	Ile	Glu	Ile	Gly	Thr	Lys	Asp	Gly	
166			180					185						190			
169	Lys	His	Glu	Gln	Ile	Asp	Leu	Phe	Asp	Ser	Pro	Asn	Glu	Gly	Thr	Arg	
170			195				200						205				
173	Ser	Asp	Ile	Phe	Ala	Lys	Tyr	Lys	Asp	Asn	Arg	Ile	Ile	Asn	Met	Lys	
174		210				215						220					
177	Asn	Phe	Ser	His	Phe	Asp	Ile	Tyr	Leu	Glu	Lys						
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VERIFICATION SUMMARY

PATENT APPLICATION: US/09/336,036

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Input Set : A:\Sequence Listing.txt

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